

REMARKS:

Applicant appreciates the courtesy of Examiner in taking the time to attend the telephone interview held on March 11, 2005. During this interview, Applicant's attorney Sara A. Centioni discussed the present invention in relation to the outstanding rejections.

Regarding the claims, claims 1, 2, 5-15 stand rejected under the judicially created doctrine of double patenting over claims 1-10 of US Patent No. 6,563,061 in view of Wolf et al. (3649166). Claims 1-20 stand rejected under 35 USC 103(a) as being unpatentable over Middleton (US 6,230,353).

Claims 1, 2, 5-15 stand rejected under the judicially created doctrine of double patenting over claims 1-10 of US Patent No. 6,563,061 in view of Wolf et al. (3649166). Specifically, the office action states the subject matter of the rejected claims is fully disclosed in the Middleton patents, except what kind of dry cleaning fluid is used. However, the office action goes on to state that n-propyl bromide's use as a dry cleaning agent is well known in the art, and relies on Wolf's teaching in support of this statement.

A review of the references cited shows that one of ordinary skill in the art would not be motivated to use n-propyl bromide as a dry cleaning fluid. Middleton ('061) states that the preferred dry cleaning fluid is perchloroethylene. (Column 4, lines 40-43). This language is also included in column 4, lines 40-43 of Middleton ('353). Furthermore, neither of these references mentions the use of n-propyl bromide.

Wolf also fails to mention the use of n-propyl bromide. Moreover, this reference supports a lack of motivation for one of ordinary skill in the art to use brominated

solvents as dry cleaning fluids. As stated in Wolf, column 1, lines 27-29, "bromo analogs of the chloro and fluoro compounds are not widely available and are very costly to employ as drycleaning agents." Considering the high volume of dry cleaning fluid used by those in the dry cleaning industry, cost becomes a significant factor in choice of cleaning fluid, especially if more expensive cleaning fluids obtain similar results.

Even assuming one would be motivated to use more expensive brominated solvents instead of the chlorinate and fluorinated equivalents thereof, Wolf expressly teaches the use of halogenated hydrocarbons having from **two** to six bromine atoms, and not **one** to six bromine atoms, as "suitable drycleaning fluids." (Column 1, lines 15-21). The negative pregnant of this teaching, is that the use of one bromine atom per hydrocarbon molecule would not result in a suitable dry cleaning fluid.

The present invention specifically teaches and claims the use of n-propyl bromide as a dry cleaning fluid. The specification contains multiple passages that explain the benefit of this dry cleaning fluid over the standard dry cleaning fluid known in the art, perchloroethylene. Furthermore, these benefits are unexpected considering the high cost of this dry cleaning fluid. The following includes a list of these benefits as described in the detailed specification of the present invention:

SUPERIOR AND UNEXPECTED RESULTS:

1. Lower Energy Costs: As stated in Paragraph [0036], lines 1-7, "Although n-propyl bromide is more costly than a majority, if not all, of chlorinated solvents, and can cost as much as three times the cost of chlorinated solvents, these additional costs are more than recouped by the decrease in energy costs required to incorporated n-propyl bromide into the cleaning component of the present process. On average, forty percent

less energy is used when n-propyl bromide is the cleaning fluid as when perchloroethylene is used. Moreover, the properties of n-propyl bromide are such that a shortened drying time is required for the oil-absorbing materials.”

2. Less State and Federal Regulation: As stated in Paragraph 15, lines 9-12, “More importantly, n-propyl bromide is not considered by federal and state agencies to be a hazardous substance. Accordingly, users of this compound do not require all of the permits typically mandated by local, state, and federal agencies.”

3. Less Stress on Equipment: As stated in Paragraph 37, “Another advantageous difference between n-propyl bromide and perchloroethylene is that n-propyl bromide is much less dense than perchloroethylene. For example, 50 gallons of perchloroethylene equals approximately 700 lbs, whereas approximately 50 gallons of n-propyl bromide equals approximately 580 lbs. Accordingly, there is less stress on the dry cleaning machine when the same amount of n-propyl bromide is used as when perchloroethylene is used.”

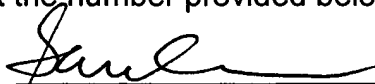
At least a partial explanation for these superior and unexpected results can be attributed to the chemical properties of n-propyl bromide. For example, n-propyl bromide has a lower distillation point in comparison with chlorinated dry cleaning fluids such as perchloroethylene. Specifically, the distillation point of n-propyl bromide can be between 70°F and 150°F (see Paragraph [0034], lines 2-4), as opposed to the distillation point of perchloroethylene, which is approximately 265°F (see Paragraph [0036], line 9-10). This property results in both lowered energy usage during distillation and generally shorter drying times. As discussed, another advantageous property of n-propyl bromide is that it is less dense than perchloroethylene. Accordingly, there is less

stress placed on the dry cleaning machine when the same amount of n-propyl bromide is used as when perchloroethylene is used. (see Paragraph [0037]). Nevertheless, the conservation of energy and costs resulting from the use of n-propyl bromide is not immediately apparent or obvious in light of its high cost. In view of these considerations and remarks, Applicant believes that double patenting rejection of claim 1 and the claims depending from claim 1 are respectfully overcome. In further support of these superior and unexpected results, Applicant attaches a Declaration under 37 C.F.R. 1.132.

Claims 1-20 stand rejected under 35 USC 103(a) as being unpatentable over Middleton (US 6,230,353). In view of the forgoing remarks, Applicant believes that the 103 rejection of claim 1 and the claims depending from claim 1 are respectfully overcome.

Based on the forgoing remarks, it is believed that the present application is in condition for allowance and reconsideration of it is requested. If examiner disagrees, he is urged to call the attorney for the Applicant at the number provided below.

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